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540 WHITE PLAINS RD
P O BOX 2005
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EXAMINER

YAMNITZKY, MARIE ROSE

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1774

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7

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-7

Office Action Summary

Application No.
09/657,738

Applicant(s)
Junji OTANI et al.

Examiner
M. Yamnitzky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02/27/02 and 05/07/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

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1. This Office action is in response to the preliminary amendment received 02/27/02 with a certificate of mailing dated 02/19/02 (Paper No. 5). The preliminary amendment crossed in the mail with the Office action mailed 02/22/02 (Paper No. 4). The preliminary amendment adds claims 8-11.

This Office action is also in response to applicants' amendment received 05/07/02 (Paper No. 6) which provides a new abstract, amends claims 1-7 and 10, and adds claims 12 and 13. A Rule 132 Declaration was received 05/07/02 along with the amendment.

Claims 1-13 are pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. The objection to the abstract is overcome by the new abstract.

Some of the issues raised under 35 U.S.C. 112, second paragraph in Paper No. 4 are overcome by applicants' amendment and/or are withdrawn in consideration of applicants' remarks. Remaining issues as well as new issues are set forth later in this Office action.

3. Claims 1, 10 and 13 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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Support for the two exclusionary provisos added to claim 1 is not clear. While original claim 7 provides support for excluding compounds of formula I or formula II in general where R_6 and R_7 do not simultaneously stand for hydrogen, the first exclusionary proviso added to claim 1 prohibits R_6 and R_7 from simultaneously standing for hydrogen only when Ar_1 and Ar_2 stand for the first possibility set forth for Ar_1 and Ar_2 . Support for excluding this subset of compounds is not clear. Support for excluding the specific compound named in the last line of claim 1 is not clear.

Nine lines from the end of claim 10, $-R_{12}$ is set forth as a possibility for R_{11} . Support for this possibility is not clear. The original disclosure sets forth $-OR_{12}$, but not $-R_{12}$, as a possibility for R_{11} .

Support for ten of the twelve specific compounds claimed in claim 13 is not clear. While the first formula is disclosed on page 16 and the second formula is disclosed on page 17, the examiner does not find the other ten formulae that are shown in claim 13 disclosed elsewhere in the specification. The last ten formulae shown in claim 13 also do not appear to correspond to any of the specific compounds disclosed in the examples.

4. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by “such as” and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 7 broadly defines the variables for formulae I and II and then, in the last seven lines, sets forth three different combinations of narrower subsets for some of the variables. In the present instance, claim 8 recites the broad limitation “branched alkyl groups or aralkyl groups” followed by the recitation “such as $-(CH_2)_{r1}-aryl-(CH_2)_{r2}-$ ” which is (questionably) the narrower statement of the limitation.

The first line of claim 2 is grammatically unclear in reciting “in treating”.

Claim 2 is confusing in broadly defining Ar_1 and Ar_2 as “aryl radicals” while depending from claim 7 which limits Ar_1 and Ar_2 to more specific possibilities. It is not clear if Ar_1 and Ar_2 may be any aryl radical for claim 2, in which case claim 2 is not proper in referring to claim 7, or if the aryl radicals for claim 2 are actually limited to the formulae shown for Ar_1 and Ar_2 in claim 7.

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The second and third lines after formulae Va and Vb in claim 2 are grammatically unclear in reciting "an usual alkylating agent".

It is not clear if "the alkylating agent" which is defined in the last three lines of claim 2 is the same as the "an usual alkylating agent" set forth earlier in claim 2.

The first line of claim 3 is grammatically incorrect in reciting "compounds I according to". The reference to "I" but not to "III" is also confusing since the DPP derivative of formula VIb could not make compound I.

Claim 3 is confusing in referring to preparing compound I (or compounds I or III) according to claim 7 because DPP derivatives of formula VIa or VIb appear to be capable of providing only a subset of the compounds of formula I or III (those in which Ar₁ and Ar₂ stand for the first possibility set forth in claim 7).

Claim 3 appears to set forth compound Va or Vb as being the compound obtained from treating DPP derivative VIa or VIb according to part (a) of the claim. It is not clear how compound Va or Vb can be obtained from VIa or VIb if R₁ and R₂ in VIa and VIb represent anything other than hydrogen. It is also not clear how compound Va or Vb, in which Ar₁ and Ar₂ are broadly allowed to represent "aryl radicals", can be obtained from DPP derivative VIa or VIb which contain halogenated phenyl groups. The only aryl radicals that appear to be obtainable from VIa and VIb are phenyl radicals.

The definition of the alkylating agent as set forth in the last three lines of claim 2 and the last four lines of claim 3 is unclear because the terminology "sulfonate...halogen" does not

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correspond one-for-one with the definition of X as set forth in these claims (e.g. the third possibility for X does not provide any of the agents in the phrase "sulfonate...halogen"). The possibilities for "X" are also confusing because it is not clear how these possibilities could provide an alkylating agent of the specified formulae having two R_1 or two R_2 . The definition of the alkylating agent is also unclear because it is not clear if R_1 and R_2 of the alkylating agent have the same definition as in claim 7. Noting that R_1 and R_2 as defined in claim 7 encompass groups that are not alkyl groups whereas R_1 and R_2 as set forth in claim 2 and in step (b) of claim 3 are part of an "alkylating" agent, it is not clear if R_1 and R_2 as set forth in claim 2 and in step (b) of claim 3 are limited to the specific alkyl groups allowed by claim 7 (i.e. alkyl groups having 1-25 carbon atoms).

Because of the use of the term "generally" in claim 3, it is not clear if the pressure at which the treatment is carried out must be in the range of 100 to 300 kPa. It is not clear if pressures other than those indicated as "generally" are within the scope of the claimed process.

Claims 1-10 encompass diketopyrrolopyrroles that are never fully defined. Where $-NR_8R_9$ stands for a five- or six-membered heterocyclic radical in which R_8 and R_9 together stand for $-CH_2-CH_2-NR_5-CH_2-CH_2-$, the variables provide compounds of formulae that are never fully defined (those in which R_5 stands for $-NR_8R_9$ in which R_8 and R_9 together stand for $-CH_2-CH_2-NR_5-CH_2-CH_2-$ in which R_5 stands for $-NR_8R_9...$).

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Claim 8 recites "branched alkyl groups or aralkyl groups, such as $-(CH_2)_{r1}-aryl-(CH_2)_{r2}-$ ". It is not clear how the formula $-(CH_2)_{r1}-aryl-(CH_2)_{r2}-$ can be considered to be representative of branched alkyl or aralkyl groups.

The formula set forth for julodidyl in claim 10 is incorrect.

Claim 10 defines " R_{11} " beginning nine lines from the end of the claim but there is no R_{11} elsewhere in the claim.

The limitations of claim 12 are not understood as an independent claim. Claim 12 should apparently depend from claim 1.

5. Claims 2, 4, 5 and 7 stand rejected under 35 U.S.C. 102(b) as being anticipated by Jost et al. (4,585,878).

See the whole patent. In particular, see column 6, line 66 - c. 15, l. 12, c. 15, l. 42 - c. 17, l. 55 and c. 21, l. 51 - c. 24, l. 45.

The fluorescent diketopyrrolopyrroles of present claim 7 are anticipated by Jost et al. because Jost et al. disclose various species within the scope of present formula I. As taught at c. 9, l. 30, Jost's compounds are fluorescent (also see c. 11, l. 61-64). The diketopyrrolopyrrole (DPP) compounds of formulae (X), (XI), (XII), (XIII), (XIV) and the DPP compounds made according to Examples 16-18 are species within the scope of claim 7. Each of these compounds corresponds to a compound of formula I wherein each of Ar_1 and Ar_2 has the first formula shown for Ar_1 and Ar_2 wherein R_5 stands for hydrogen, one of R_6 and R_7 stands for hydrogen, and the

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other of R_6 and R_7 stands for cyano, halogen or C_1 -alkyl, thus meeting claim 7's proviso that R_6 and R_7 do not stand simultaneously for hydrogen.

At least prior art examples 4 and 16-18 provide DPP compounds made by the process of present claim 2.

Jost et al. disclose coloring polymeric materials by incorporating a DPP compound thus anticipating the method of claim 4 and the composition of claim 5. For example, see c. 6, l. 66 - c. 9, l. 17.

6. Claims 1, 4-7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumura et al. (EP 0 499 011 A1).

See the entire reference. In particular, see page 5, line 43 through p. 7, l. 11, p. 8, l. 40-56, p. 11, l. 5-15 and Example 7 on p. 15 with reference to Example 1 on pp. 12-13.

Example 7 provides an electroluminescent device which comprises, in the order listed, an anode, a hole transporting layer, a light-emitting layer and a cathode. The light-emitting layer comprises a diketopyrrolopyrrole (DPP). The DPP of prior art Example 7 does not meet the limitations of a DPP of formula I as defined in present claims 1 and 7 because the DPP of prior art Example 7 does not meet the proviso that R_6 and R_7 do not stand simultaneously for hydrogen. However, fluorescent DPPs meeting this proviso could at once be envisaged by one of ordinary skill in the art at the time of the invention given the prior art's teachings of most preferred compounds (p. 6, l. 46-47). Also see claim 10 of the reference. Prior art claim 10, as dependent

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from claim 9, limits the compound of formula I to three specific possibilities, one of which meets the limitations of a DPP of formula I as defined in present independent claims 1 and 7.

With respect to the subject matter of present claims 4-6, see p. 8, l. 40-56.

Claim 12 is included in this rejection as if dependent from claim 1. Although claim 12 places a further limitation on R_8 and R_9 , claim 12 does not limit the DPP in the claimed device to a DPP comprising an Ar_1 and/or Ar_2 in which R_8 and R_9 are present.

7. Claim 7 stands rejected under 35 U.S.C. 102(b) as being anticipated by DE 37 13 459 A1.

The prior art discloses fluorescent diketopyrrolopyrroles within the scope of formula I. The compounds of formula (2b), (2c) and (2d) as shown on page 3 of the prior art meet the limitations of formula I as defined in claim 7 including the proviso that R_6 and R_7 do not stand simultaneously for hydrogen.

8. Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Jost et al. (4,585,878) as applied to claims 2, 4, 5 and 7 above, and for the further reasons set forth below.

Jost et al. disclose coloring polymeric materials such as polyamide, polystyrene, methacrylates and ABS, but do not explicitly disclose coloring these materials so as to provide a composition having amounts of DPP compound and polymeric material required by claim 6 (by virtue of claim 6's dependence from claim 5). Jost et al. do explicitly teach using amounts of DPP

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and polymeric material within the ranges set forth in claim 5 but only explicitly teach the amounts with respect to the coloring of polyester.

It would have been within the level of ordinary skill of a worker in the art at the time of the invention, as a matter of routine experimentation, to determine suitable and optimum amounts of DPP colorant and polyamide, polystyrene, polymethylmethacrylate or ABS to be combined. One of ordinary skill in the art would have been motivated to combine amounts of DPP colorant and polymeric material suitable to provide the colored polymeric material with the desired depth of shade while avoiding excess amounts of colorant that would increase cost without providing additional colorant benefits.

9. Claims 1, 2, 4-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura et al. (EP 0 499 011 A1) as applied to claims 1, 4-7 and 12 above, further in view of Jost et al. (4,585,878).

The Matsumura reference is directed to an electroluminescent device comprising a diketopyrrolopyrrole compound in the light-emitting layer of the device. Matsumura et al. teach that the compounds may be made by the methods described in the patent to Jost et al. For example, see page 5, line 43 through p. 7, l. 11, p. 8, l. 40-56, p. 11, l. 5-15 and Example 7 on p. 15 with reference to Example 1 on pp. 12-13 in the Matsumura reference. See column 6, line 66 - c. 15, l. 12, c. 15, l. 42 - c. 17, l. 55 and c. 21, l. 51 - c. 24, l. 45 in the Jost patent.

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Matsumura et al. and Jost et al. both disclose specific diketopyrrolopyrrole compounds within the scope of the present claims, but neither reference discloses examples encompassing the entire scope of compounds encompassed by the present claims. It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to make compounds similar in structure to those disclosed in the prior art references. One of ordinary skill in the art would have been motivated to make compounds similar in structure to those disclosed by Matsumura et al. and Jost et al. with the expectation that compounds similar in structure would have similar properties and could be used for the purposes taught by Matsumura et al. and Jost et al.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jost et al. (4,585,878).

Claim 13 recites "A compound according to the formulae" followed by twelve formulae. The examiner interprets this as meaning the claim is drawn to any one of the twelve compounds represented by the twelve formulae. Jost et al. generically discloses N-substituted diketopyrrolopyrroles encompassing compounds within the scope of the twelve formulae set forth in claim 13. For example, see column 1, line 5 - c. 4, l. 62. With respect to R_1 and R_2 in Jost's formula (I), Jost teaches that phenyl and naphthyl which are unsubstituted or which carry substituents that do not confer solubility in water are of particular interest (see c. 4, l. 63 - c. 5, l. 40). With respect to R_3 and R_4 in Jost's formula (I), alkyl groups having 1-12 carbon atoms, and

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benzyl which may be substituted by halogen or by alkyl groups having 1-12 carbon atoms are among the preferences taught by Jost et al. (see c. 5, l. 41-47).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to make various compounds within the scope of Jost's formula (I) in order to provide compounds useful for Jost's purposes. One of ordinary skill in the art would have reasonably expected that compounds within Jost's formula (I), and particularly those having the preferred groups taught by Jost, would be useful for Jost's purposes. It is the examiner's position that the compounds of present claim 13 would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention given Jost's disclosure because these compounds have preferred groups taught by Jost. For example, the first formula in claim 13 is a compound of Jost's formula (I) wherein R_1 and R_2 are radicals of formula (III) as shown at c. 5, l. 24-40 wherein R_{23} is a C_1 -alkyl and R_{22} is hydrogen, and R_3 and R_4 are each benzyl substituted by C_1 -alkyl. As another example, the ninth formula in claim 13 is a compound of Jost's formula (I) wherein R_1 and R_2 are each unsubstituted naphthyl, and R_3 and R_4 are each C_1 -alkyl.

11. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuguchi et al. (5,298,063).

Mizuguchi et al. generically disclose diketopyrrolopyrroles encompassing compounds within the scope of present claims 8-11. For example, see formula (II) in column 2, c. 3, l. 7-14, c. 4, l. 39-45 and c. 4, l. 52-59. Preferred compounds of formula II as taught at c. 4, l. 52-59

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encompass compounds within the scope of diketopyrrolopyrroles of formula (A4) as defined in present claims 8-11. Compounds within the scope of diketopyrrolopyrroles of formula (A2) or formula (A3) as defined in present claims 8-11 are also within the scope of Mizuguchi's formula (II).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to make various compounds within the scope of Mizuguchi's formula (II) in order to provide compounds useful for Mizuguchi's purposes. One of ordinary skill in the art would have reasonably expected that compounds within Mizuguchi's formula (II), and particularly those having the preferred groups taught by Mizuguchi, would be useful for Mizuguchi's purposes. It is the examiner's position that the compounds of present claims 8-11 would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention given Mizuguchi's disclosure. In particular, the compounds of formula (A4) would have been *prima facie* obvious to one of ordinary skill in the art given the teachings at c. 4, l. 52-59 of the patent.

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-13 of copending Application No. 09/753,080. Although the conflicting claims are not identical, they are not patentably distinct from each other because there is substantial overlap between the fluorescent diketopyrrolopyrroles of the present claims and the fluorescent diketopyrrolopyrroles of the copending claims. Both sets of claims also include similar claims to processes of making, to colored organic material comprising, and to a method of coloring an organic material by incorporating the DPPs. The copending claims do not specifically claim an electroluminescent device, but do claim the use of the DPP for the preparation of electroluminescent devices.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. The following is a quotation of the appropriate paragraph of 35 U.S.C. 102 that forms the basis for the following rejection under this section:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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15. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 2-7 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 09/735,080 which has a common inventor with the instant application but a different inventive entity.

Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future patenting of the copending application. The copending application discloses specific examples of fluorescent diketopyrrolopyrroles that are within the scope of present claim 7, methods of making them as in present claims 2 and 3, methods of using them to color organic material as in present claim 4, and a colored organic material comprising them as in present claims 5 and 6.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

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This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

16. Applicants' arguments filed 05/07/02 along with the data presented in the Rule 132 Declaration of Yamamoto Hiroshi have been fully considered but they are not persuasive with respect to various prior art rejections for the reasons noted below.

With respect to the rejection of claims 2, 4, 5 and 7 as anticipated by Jost, the rejection of claim 6 as obvious based on Jost, and the rejection of claim 7 as anticipated by DE 37 13 459 A1 (Langhals), applicants argue that claim 7 (with claims 2 and 4-6 dependent therefrom) excludes the phenyl group from the definition of Ar₁ and Ar₂. This argument is not persuasive because while Ar₁ and Ar₂ cannot represent unsubstituted phenyl groups according to amended claim 7, they can represent substituted phenyl groups. Jost's compounds and Langhals' compounds referenced in the rejection in this Office action are compounds having substituted phenyl groups at the positions corresponding to Ar₁ and Ar₂.

With respect to the rejection of claims 1 and 4-7 as anticipated by Matsumura et al. (EP '011), applicants argue that the DPP used in Example 7 of the reference does not show electroluminescence in thin film type organic EL devices. The examiner respectfully disagrees. The device of prior art Example 7 is electroluminescent; the DPP shows electroluminescence. While the Rule 132 Declaration states that a device made with this DPP did not show any electroluminescence, the device described in the declaration is not made the same way and is not

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operated under the same conditions as described in the prior art. The fact that declarant was able to make a device with this DPP that does not electroluminescence does not mean that this DPP is incapable of showing electroluminescence.

Applicants also argue that the emission from a device using the DPP used in Example 3 of EP '011 (also used in Example 1 of EP '011) is "heterogeneous/uneven on the emission area of the device." Applicants apparently base this conclusion on a device made as described in the Rule 132 Declaration. The relevance to the claimed subject matter is unclear. The device described in the declaration is not made the same way and is not operated under the same conditions as described in the prior art. Further, the presently claimed device requires a DPP as a light-emitting substance, with no limitations placed on the quality of light emission exhibited by the device.

The relevance of applicants' comparisons to the DPP of prior art Example 7 and prior art Examples 1 and 3 is also not clear since those DPPs are not the anticipatory DPPs that one of ordinary skill in the art could at once envisage from the prior art disclosure. Further, with respect to the rejection under 35 U.S.C. 102, anticipation "cannot be overcome by evidence of unexpected results or teachings away in the art." *In re Malagari*, 499 F.2d 1289, 182 USPQ 549, 553 (CCPA 1974) citing *In re Wiggins*, 488 F.2d 538, 179 USPQ 421 (CCPA 1973).

With respect to the rejection based on the combination of Matsumura et al. (EP '011) and Jost, applicants argue that Jost does not teach the use of DPP compounds in EL devices, and that the compound mentioned in Example 6 of Jost does not show electroluminescence in thin film type organic EL devices. Applicants argue that therefore it would not be obvious to use the

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compounds taught in Jost in EL devices. The Rule 132 Declaration describes a single EL device made with the DPP of Jost's Example 6 wherein the device does not electroluminescence. The examiner does not consider this one device to objectively demonstrate that it is impossible to achieve electroluminescence from a DPP of Jost's Example 6. The fact that Jost does not teach the use of DPP compounds in EL devices is also not persuasive as to the patentability of the present claims given that Jost discloses the DPP compounds as fluorescent compounds. EP '011 utilizes fluorescent DPP compounds in EL devices and refers to the Jost patent as disclosing methods by which the DPP compounds can be made.

17. The reference made of record and not relied upon is considered pertinent to applicants' disclosure. EP 1 087 005 does not constitute prior art but is cited because it is related to copending application 09/735,080.

18. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (703) 308-4413. The examiner works a flexible schedule but can generally be reached at this number from 6:30 a.m. to 4:00 p.m. Monday, Tuesday, Thursday and Friday, and every other Wednesday from 6:30 a.m. to 3:00 p.m.

The current fax numbers for Art Unit 1774 are (703) 872-9311 for official after final faxes and (703) 872-9310 or (703) 305-5408 for all other official faxes. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (703) 872-9041.)

MRY
07/26/02



MARIE YAMNITZKY
PRIMARY EXAMINER

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